

**In the Claims**

Please replace the indicated claims with the following clean versions of the claims, in accordance with 37 C.F.R. § 1.121(c)(1)(i). Cancel all previous versions of any pending claim.

A marked up version showing amendments to any claims being changed is provided in one or more accompanying pages separate from this amendment in accordance with 37 C.F.R. § 1.121(c)(1)(ii). Any claim not accompanied by a marked up version has not been changed relative to the immediate prior version, except that marked up versions are not being supplied for any added claim or canceled claim.

**CLAIMS**

Cancel Claims 1-36

Please add new claims 37-41.

37. (new) A method for controlling the texture of a cast material alloy, comprising

*(X3)* the steps of:

providing a cast material comprising an alloy;

defining equal channel angular extrusion routes for defining predetermined shear planes and crystallographic directions in the alloy;

selecting at least a route from the defined routes for plastically deforming the alloy during equal channel angular extrusion; and

subjecting the alloy to a predetermined number of passes through the selected routes.

38. (new) A method for controlling the texture of a cast material alloy, comprising the steps of:

providing a cast material comprising an alloy;

defining equal channel angular extrusion routes for defining predetermined shear planes and crystallographic directions in the alloy;

selecting at least one route from the defined routes for processing the alloy;

processing the alloy through the selected at least one route; and

recovery annealing the alloy at a temperature range and a time period determined for the alloy for obtaining substantially uniform grain size, global microstructure and texture.

39. (new) A method for influencing the texture evolution of a cast material alloy, comprising the steps:

providing a cast material comprising an alloy;

defining equal channel angular extrusion routes for defining predetermined shear planes and crystallographic directions in the alloy;

selecting at least one route from the defined routes for processing the alloy;

processing the alloy through the selected at least one route;

recovery annealing the alloy at a temperature range and a time period determined for the alloy; and

further recovery annealing the alloy at a temperature greater than maximum temperature of the temperature range.

40. (new) A method for controlling the texture of a cast material alloy, comprising the steps of:

providing a cast material comprising an alloy;  
defining equal channel angular extrusion routes for defining predetermined shear planes and crystallographic directions in the alloy;  
selecting at least one route from the defined routes for processing the alloy;  
processing the alloy through the selected at least one route; and  
post-extrusion processing the alloy to create a specific texture, a uniform grain size

and a high texture strength for the alloy.

41. (new) A method for controlling the texture of a cast material alloy, which comprises the steps of:

providing a cast material comprising an alloy;  
defining equal channel angular extrusion routes for defining predetermined shear planes and crystallographic directions in the alloy;  
selecting at least one route from the defined routes for processing the alloy;  
processing the alloy through the selected at least one route; and  
further processing the alloy under equal channel angular extrusion in order to create a specific texture, a uniform grain size and a high texture strength for the alloy.